



**GazCal™**

## Calibration Gas Generator

Please read this manual before using the GazCal™

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**EURO-GAS**  
management services ltd

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## Introduction

The GazCal™ is a gas generator that produces concentrations of Chlorine (CL<sub>2</sub>) for testing and calibrating gas detectors. The unit is battery operated and is designed for field applications.

The GazCal™ uses an electrochemical cell to produce the gas. A cloudy controlled airflow, provided by an internal pump, then dilutes the gas to the required concentration.

## Specification

<b>Concentration range:</b>	Adjustable between 0.5 and 20ppm ±10% or 0.25ppm whichever is greater
<b>Calibration:</b>	0.5 - 5ppm or 5 - 20ppm
<b>Flow rate:</b>	0.5 l/min or 1 l/min
<b>Cell Life:</b>	500ppm hours
<b>Power Supply:</b>	Internal rechargeable battery
<b>Battery Life:</b>	Typically 12 hours between charges
<b>Dimensions (mm):</b>	260 W x 110 D x 210 H
<b>Weight:</b>	2 Kg
<b>Operating Temperature:</b>	0 – 50°C
<b>Cleaning:</b>	Use moist cloth only – do not immerse in water
<b>Delivery tube material:</b>	PTFE and/or polyurethane recommended

## Warranty

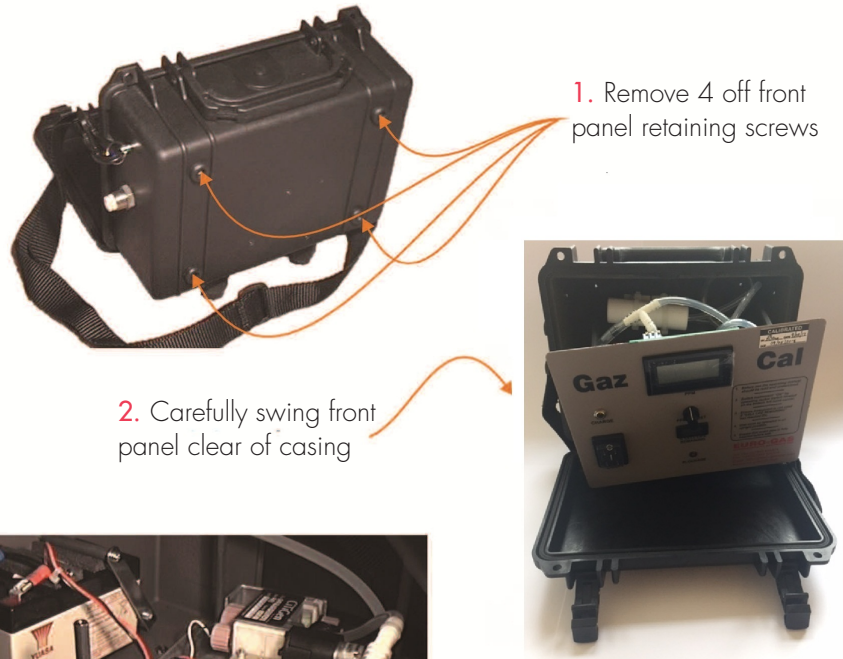
Euro-Gas warrants portable instruments of its own manufacture (batteries, fuses, lamps, tubing, fittings and filters excepted) to be free of defects in materials and workmanship for a period of one year from the date of shipment. Generating cells are warranted for a period of 1 month from date of shipment. Euro-Gas's sole obligation under this warranty is limited to repairing or replacing, at its choice, any item covered under this warranty when such item is returned intact, prepaid, to Euro-Gas or the local representative.

These warranties are automatically invalidated if the products are repaired, altered or otherwise tampered with by unauthorised personnel, or have been subject to misuse, neglect or accident.



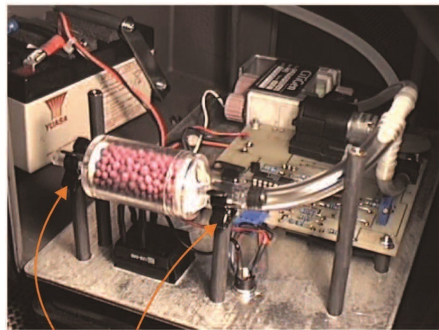
At the end of the product's life, do not dispose of any electronic instrument in the domestic waste, but contact Euro-Gas or its distributor for disposal instructions.

## Replacing Internal Air Filter



1. Remove 4 off front panel retaining screws

2. Carefully swing front panel clear of casing



3. Lift filter from spring clip holders

4. Replace with new filter



## Pack Contents List

1. GazCal™
2. Shoulder Strap
3. 1m of Polyurethane tubing
4. Charger
5. Operating Manual



## Instrument Layout

1. On/Off Switch
2. Cell Life Indicator
3. Blockage LED
4. Gas Outlet Connector
5. PPM Adjust Knob
6. PPM Display
7. Battery Charging Socket



## OPERATION

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Ensure adequate ventilation during operation, Chlorine (even at low concentration) can be harmful. See MSDS for further product safety information.

1. Open front cover to expose control panel.
2. Check 'CELL LIFE REMAINING' indicator has not reached 0. If indicator has reached 0, do not attempt to use as the generating cell needs to be replaced. The generating cell can be replaced by either:-
  - a. returning the GazCal™ to Euro-Gas (or local representative) or,
  - b. fitting a new cell yourself – new cells from Euro-Gas come with full instructions.
3. Push outlet pipe firmly into gas outlet connector.
4. Toggle ON/OFF switch to 'ON' position. If low battery symbol appears on the display, switch instrument 'OFF' and connect 'GazCal™ CHARGER' via charge socket and charge instrument for eight hours. Alternatively the instrument can be run from the charger.
5. Ensure 'BLOCKAGE' LED is not illuminated. If the 'BLOCKAGE' LED is illuminated, check outlet pipe for blockages. If the 'BLOCKAGE' LED remains illuminated the internal air filter may need replacing. The life of the air filter depends upon the atmosphere which the instrument is used in, but should always be replaced every **3 MONTHS**.
6. Rotate 'PPM ADJUST' knob until the desired concentration is displayed. Allow 3 minutes for the generating concentration to stabilise. The instrument is now ready for use. Note the GazCal™ has been designed to work in the upright position, but can be used with the front cover either open or closed.
7. Before switching the GazCal™ 'OFF', the instrument must be purged. To purge the instrument, simply rotate the 'PPM ADJUST' knob until 0.0 PPM Cl<sub>2</sub> is displayed, and allow instrument to run for one minute before switching instrument 'OFF'.
8. Remove gas outlet pipe by pressing release ring of outlet connector towards the case, and pull gas outlet pipe out of outlet.

## WARNINGS & TROUBLESHOOTING

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### Warnings

- Do not inhale output gas
- Do not immerse in water
- Ensure dry, compatible materials in delivery system
- Allow sufficient time for gas concentration to stabilise after switch on
- Always purge the instrument after use
- Under extreme fault conditions the unit could generate up to 100ppm Chlorine



### Troubleshooting

Q. The 'CELL LIFE REMAINING' indicator shows 0?

A. The generating cell can be replaced by either:

- a. returning the GazCal™ to Euro-Gas (or local representative) or
- b. fitting a new cell yourself – new cells from Euro-Gas come with full instructions.

Q. Low battery symbol appears on the display?

A. Charge instrument with 'GazCal™ CHARGER' for eight hours

Q. The 'BLOCKAGE' LED is illuminated?

- A.
1. Check that the gas outlet pipe is no longer than 1 m in length, as supplied by Euro-Gas.
  2. Ensure that any adaptors on calibration cups fitted to the outlet do not cause restrictions to the gas flow.
  3. Check gas outlet pipe for blockage.
  4. Replace internal air filter (as detailed on page 4).

Q. Your GazCal™ is dropped or immersed in liquid?

A. Return the instrument to Euro-Gas or the local representative for checking.